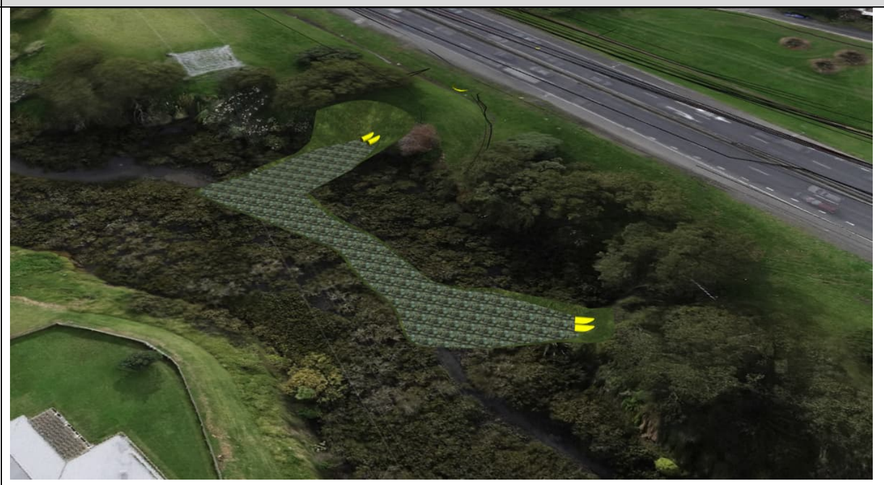
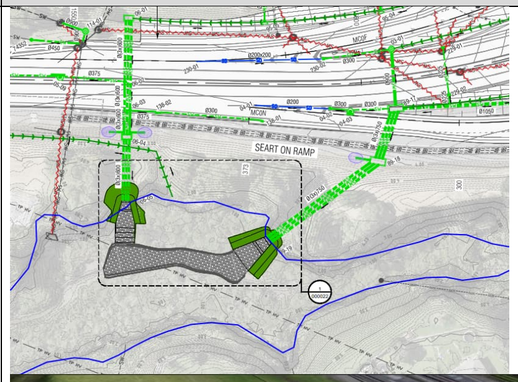
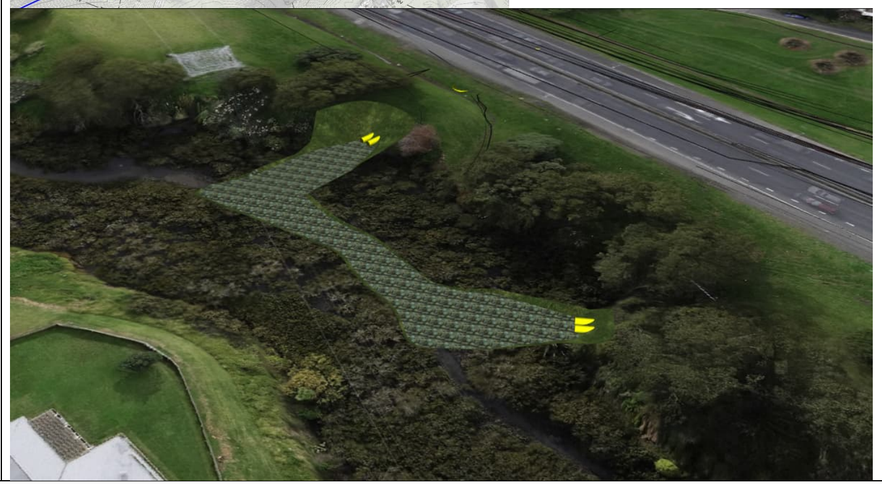
Summary of Structural Elements for Eastern Busway 2 Stormwater Outfalls

Outfall Name	Drawing Exert	AUP – Chapter E3 Controls (E3.6.1.10 and E3.6.1.14) and AUP - E26.3.3.1					NES - Freshwater							
		Total length of instream structure is less than 30m	Area of vegetation clearance proposed within stream riparian margins Area of vegetation clearance proposed within coastal area	Is stream disturbance less than 10m (excluding structure)?	Fish passage not obstructed	1 per cent annual exceedance probability (AEP) flood provided for.	Fish Passage Provided up and downstream	Culvert laid parallel to the slope of the bed of the river	Mean cross-sectional water velocity in the culvert no greater than that in all immediately adjoining river reaches	Culvert's width where it intersects with the bed of the river or connected area (s) and the width of the bed at that location (w), both measured in metres, must compare as follows: (i) where w ≤ 3, s ≥ 1.3 × w: (ii) where w > 3, s ≥ (1.2 × w) + 0.6	Culvert is open-bottomed or has its invert must be placed so that at least 25% of the culvert's diameter is below the level of the bed;	Bed substrate must be present over the full length of the culvert and stable at the flow rate at or below which the water flows for 80% of the time	Culvert provides for continuity of geomorphic processes	Area of vegetation within 10m a wetland for specified infrastructure (includes mangroves) Area of Earthworks or land disturbance outside a 10 m, but within a 100 m of a wetland (includes mangroves) Area of Earthworks or land disturbance outside a 10 m, but within a 100 m, setback from a natural wetland is a discretionary activity if it— is likely to result, in the complete or partial drainage of all or part of the natural wetland.
06-05		Works are in the CMA. Resource consent not required.	Approximately 1120m² of vegetation clearance proposed for the two outfalls. Resource consent required.	Works are in the CMA. Resource consent not required.	Works are in the CMA. Resource consent not required.	Works are in the CMA. Resource consent not required.	Works are in the CMA. Resource consent not required.	No, this is not culvert, this is a network drainage pipe discharging to CMA. Resource consent not required.	There are no immediately joining river tributaries only discharges from network drainage pipes. Velocities are reduced by energy dissipation measures at outfalls Resource consent not required Resource consent not required	Not a stream and not a culvert. Twin 750 mm network drainage pipes. W = 1.1 m S = 1.728 m Resource consent not required.	Closed bottom network drainage pipe discharging to CMA. Twin 750 mm pipes invert level is 250 mm above bed level. Resource consent not required.	Not a culvert, it's a network drainage pipe and there is no Bed substrate present Resource consent not required.	Not a culvert and does not provide for continuity of geomorphic processes Resource consent not required.	The construction of two new stormwater outfalls will require the removal of approximately 4262m² of a mangrove dominated coastal wetland within the Tāmaki River. The construction of two new stormwater outfalls will require the disturbance of approximately 4262m² of a mangrove dominated coastal wetland within the Tāmaki River. Resource consent required.

Summary of Structural Elements for Eastern Busway 2 Stormwater Outfalls

Outfall Name	Drawing Exert	AUP – Chapter E3 Controls (E3.6.1.10 and E3.6.1.14) and AUP - E26.3.3.1					NES - Freshwater								
		Total length of instream structure is less than 30m	Area of vegetation clearance proposed within stream riparian margins Area of vegetation clearance proposed within coastal area	Is stream disturbance less than 10m (excluding structure)?	Fish passage not obstructed	1 per cent annual exceedance probability (AEP) flood provided for.	Fish Passage Provided up and downstream	Culvert laid parallel to the slope of the bed of the river	Mean cross-sectional water velocity in the culvert no greater than that in all immediately adjoining river reaches	Culvert's width where it intersects with the bed of the river or connected area (s) and the width of the bed at that location (w), both measured in metres, must compare as follows: (i) where w ≤ 3, s ≥ 1.3 × w: (ii) where w > 3, s ≥ (1.2 × w) + 0.6	Culvert is open-bottomed or has its invert must be placed so that at least 25% of the culvert's diameter is below the level of the bed;	Bed substrate must be present over the full length of the culvert and stable at the flow rate at or below which the water flows for 80% of the time	Culvert provides for continuity of geomorphic processes	Area of vegetation within 10m a wetland for specified infrastructure (includes mangroves) Area of Earthworks or land disturbance outside a 10 m, but within a 100 m of a wetland (includes mangroves) Area of Earthworks or land disturbance outside a 10 m, but within a 100 m, setback from a natural wetland is a discretionary activity if it— is likely to result, in the complete or partial drainage of all or part of the natural wetland.
89-19	 	Works are in the CMA. Resource consent not required.	Approximately 1120m² of vegetation clearance proposed for the two outfalls. Resource consent required.	Works are in the CMA. Resource consent not required.	Works are in the CMA. Resource consent not required.	Works are in the CMA. Resource consent not required.	No – Network Drainage not a Culvert, there is no upstream waterway channels and no fish passage provided Resource consent not required.	No, this is not culvert, this is a network drainage pipe discharging to CMA. Resource consent not required.	There are no immediately joining river tributaries only discharges from network drainage pipes. Velocities are reduced by energy dissipation measures at outfalls Resource consent not required.	Not a stream and not a culvert. Twin 750 mm network drainage pipes. W = 1.1 m S = 1.728 m Resource consent not required.	Closed bottom network drainage pipe discharging to CMA. Twin 750 mm pipes invert level is 140 mm below bed level. Resource consent not required.	Not a culvert, it's a network drainage pipe and there is no Bed substrate present Resource consent not required.	Not a culvert and does not provide for continuity of geomorphic processes Resource consent not required.	The construction of two new stormwater outfalls will require the removal of approximately 4262m² of a mangrove dominated coastal wetland within the Tāmaki River. The construction of two new stormwater outfalls will require the disturbance of approximately 4262m² of a mangrove dominated coastal wetland within the Tāmaki River. Resource consent required.